



# “Improving Competitiveness in a Global Economy”



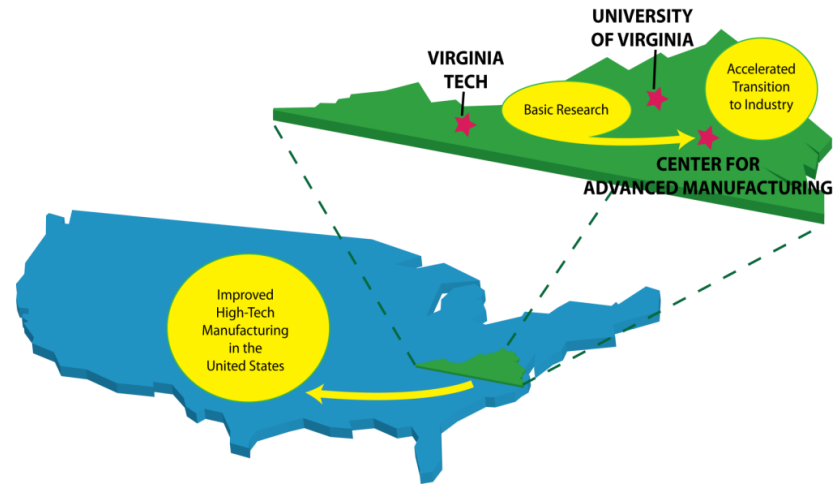
**VirginiaTech**  
*Invent the Future*

**CCAM**

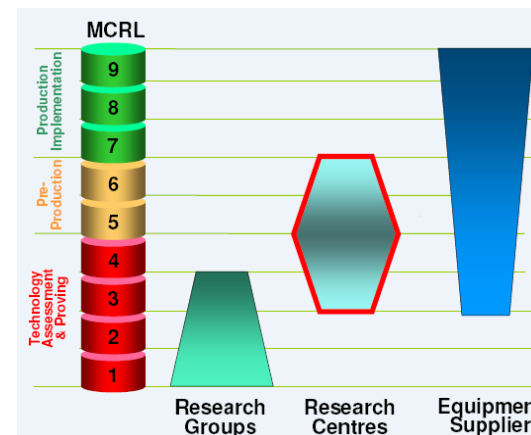
COMMONWEALTH CENTER FOR  
ADVANCED MANUFACTURING



- **Provide transformational improvements in advanced manufacturing technologies**
  - Reduce cost
  - Improve quality
  - Reduce time to market
- **Bridge the gap between fundamental research and commercialization**
  - Accelerate technology into markets
  - Demonstrate technology on real problems
- **Foster collaboration among diverse industry sectors with similar problems**
  - Directed Research for the exclusive proprietary benefit of an individual member
  - Generic Research for the benefit of all member companies
- **Lower the cost of research and development for member companies**
  - Shared facilities and personnel
  - Shared pre-competitive research
- **Train the next generation of technology leaders**
  - Provide market ready experience to students
  - Connect industry with students



## Accelerate Transition of Technology from Fundamental Research to Industry



- A global Center of Excellence in surface engineering and manufacturing systems
  - Creating new technologies
  - Enabling new products
  - Fostering collaboration across industry sectors
- A foundational component of the larger vision for advanced manufacturing in Virginia
  - Expanding research capability
  - Workforce training
  - Economic development engine
- CCAM growth in 10 years to:
  - 49 full-time resident PhD-level research staff members
  - 35 graduate research assistants resident at CCAM
  - 35 undergraduate interns resident at CCAM
  - More than 30 Industry Members
  - Sustainable and diversified research portfolio from industry and federal sources totaling more than \$16 million per year



Transportation



Shipbuilding



Energy



Aerospace



Electronics



Defense



Automotive

*Industry guided within a balanced governance model*

- **Multiple levels of membership**

- Organizing Industry Members
- Organizing University Members
- Tier 1 Industry Members
- Tier 2 Industry Members
- Academic Members

- **Board of Directors**

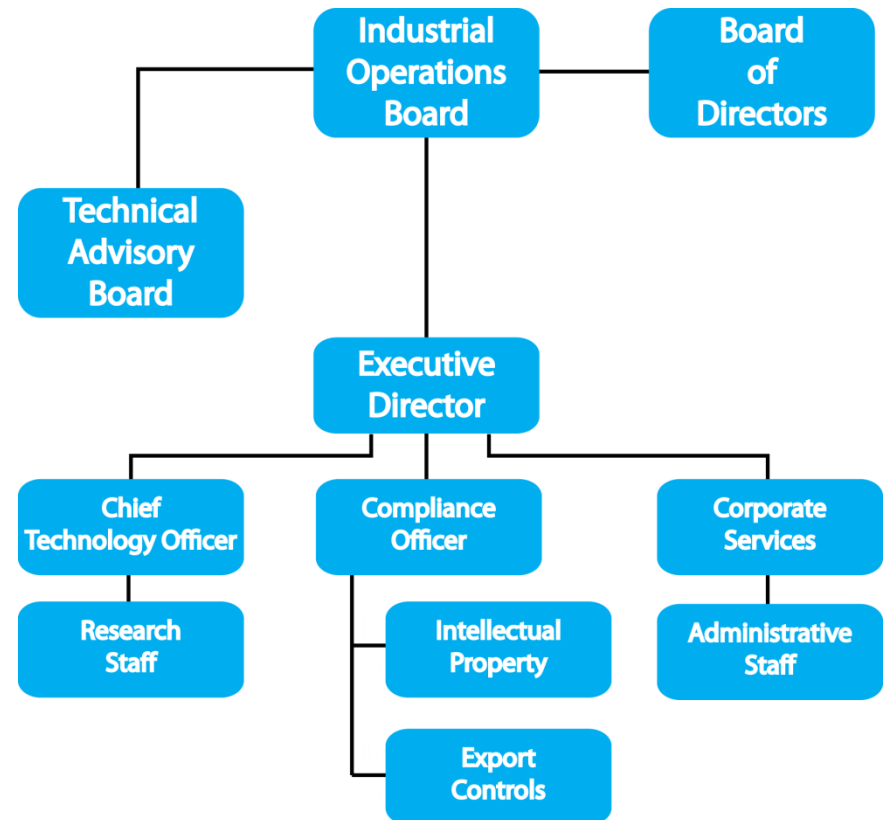
- Establishes all policies
- Approves budgets
- One member from each Organizing Member
- Chair of Industrial Operations Board is a member
- Executive Director

- **Industrial Operations Board**

- Provides oversight of day-to-day operations
- Develops research portfolio
- One member from each Tier 1 and Organizing Member
- One member elected by Tier 2 Members
- One member from each Organizing University Member

- **Technical Advisory Board**

- Establishes technology roadmap
- Provides insight to new technologies
- One representative from each member organization



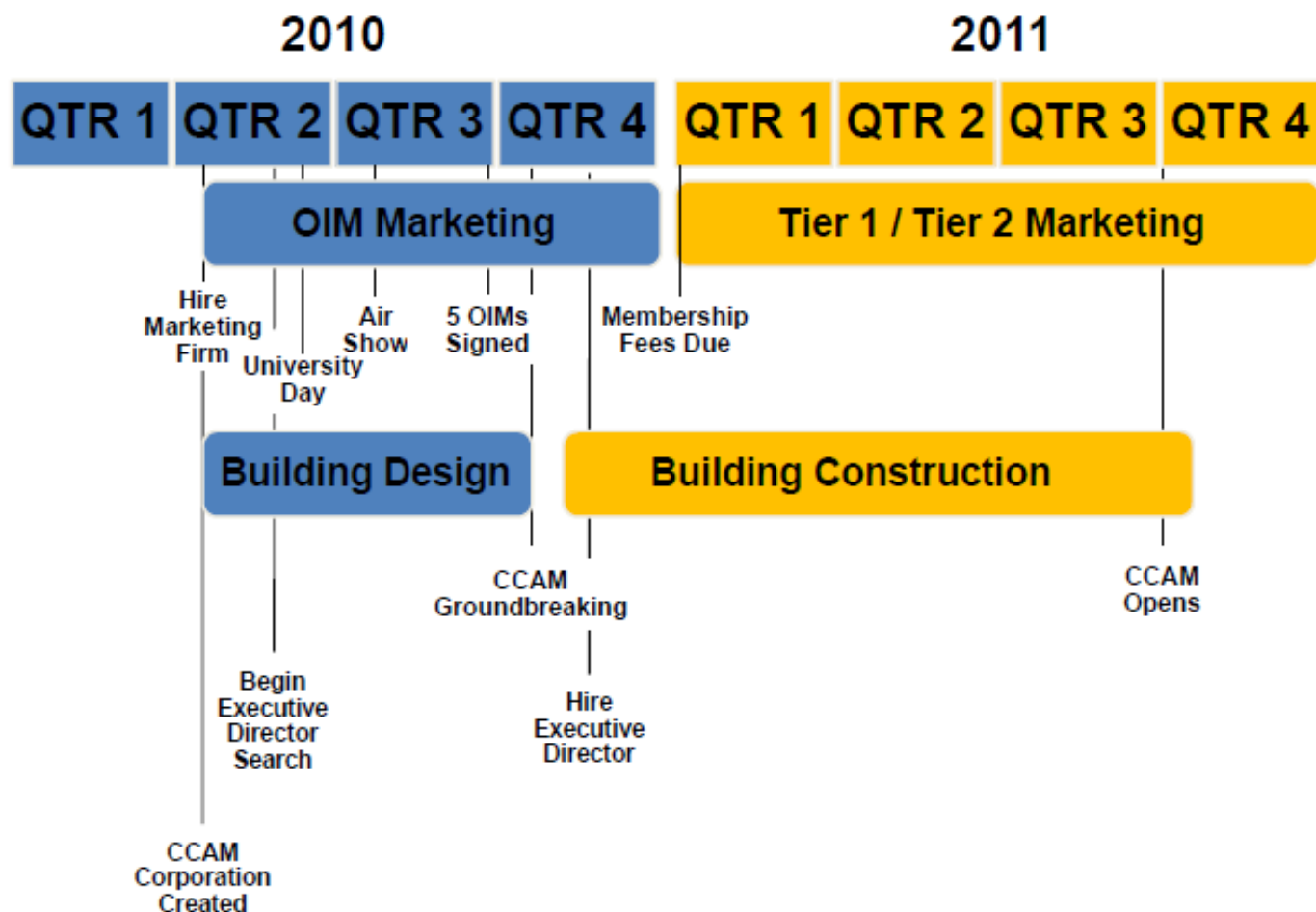
## **A unique IP Policy:**

- Member owned Directed Research
- Shared rights to IP developed by jointly funded Generic Research

## **New and innovative collaborative process for US universities and industry**

- Processes agreed to enable universities to retain publishing rights while enabling industry to protect their IP

- **CCAM formed as a corporation**
- **Rolls-Royce, University of Virginia, and Virginia Tech are the first Organizing Members**
- **Initial research project underway (thermal spraying)**
- **Search firm engaged to hire Executive Director**
- **CCAM facility development underway**
  - 20 acres of land transferred to UVA Foundation by Rolls-Royce
  - Perkins + Will hired as architectural and engineering firm
  - Initial program plan for facility completed
- **Member recruitment strategy and process developed**
- **Faculty hiring underway at Universities**



# Thank You

